

11-173-C025

## Monoclonal Antibody to CD3 Purified Antibody (0.025 mg)

Clone: SK7

**Isotype:** Mouse IgG1

Specificity: The mouse monoclonal antibody SK7 recognizes the CD3 antigen of the TCR/CD3

complex on mature human T cells. This antibody reacts with the epsilon chain of the CD3 complex. The monoclonal antibodies SK7 and UCHT1 recognize

overlapping epitopes. HLDA II; WS Code T118 HLDA III; WS Code T492

Regulatory Status: RUO

Immunogen: Human thymocytes

Species Reactivity: Human, Non-Human Primates

**Application:** Flow Cytometry

Western Blotting

Immunohistochemistry (frozen sections)

Immunocytochemistry

**Purity:** > 95% (by SDS-PAGE)

**Purification:** Purified by protein-A affinity chromatography

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial

label.

Expiration: See vial label

Lot Number: See vial label

Background: CD3 complex is crucial in transducing antigen-recognition signals into the

cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins super family encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and

proliferation.

The CD3 antigen is present on 68-82% of normal peripheral blood lymphocytes, 65-85% of thymocytes and Purkinje cells in the cerebellum. It is never expressed on B or NK cells. Decreased percentages of T lymphocytes may be observed in

some autoimmune diseases.

For laboratory research only, not for drug, diagnostic or other use.



## PRODUCT DATA SHEET

## References:

\*Wood GS, Burns BF, Dorfman RF, Warnke RA: The immunohistology of non-T cells in the acquired immunodeficiency syndrome. Am J Pathol. 1985 Sep;120(3):371-9.

\*Li B, Wang H, Dai J, Ji J, Qian W, Zhang D, Hou S, Guo Y: Construction and characterization of a humanized anti-human CD3 monoclonal antibody 12F6 with effective immunoregulation functions. Immunology. 2005 Dec;116(4):487-98.

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\*Guttman-Yassky E, Vugmeyster Y, Lowes MA, Chamian F, Kikuchi T, Kagen M, Gilleaudeau P, Lee E, Hunte B, Howell K, Dummer W, Bodary SC, Krueger JG: Blockade of CD11a by efalizumab in psoriasis patients induces a unique state of T-cell hyporesponsiveness. J Invest Dermatol. 2008 May;128(5):1182-91.

\*Qiao D, Li L, Guo J, Lao S, Zhang X, Zhang J, Wu C: Mycobacterium tuberculosis culture filtrate protein 10-specific effector/memory CD4⁺ and CD8⁺ T cells in tubercular pleural fluid, with biased usage of T cell receptor Vβ chains. Infect Immun. 2011 Aug;79(8):3358-65.

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